

REMARKS

Reconsideration and allowance of this application, as amended, is respectfully requested.

This amendment is in response to the Office Action dated October 8, 2002.

By the present amendment, claims 1-11 have been cancelled, without prejudice to the applicants' right to file either a continuation or a divisional application directed to these or similar claims. New claims 17-24 have been added which correspond to amended versions of original claims 1-5 and 9-11. In particular, these claims have been amended to change the term "mainly composed of" to terminology "comprised of a material as a main component" or "comprised of titanium oxide as a main component" etc. A similar amendment has been made in claim 22, corresponding to original claim 9, by replacing the phrase "in a high proportion" to "as a main component." It is respectfully submitted that the term "main component" is well-recognized in patent claim language, and, as such, meets the requirements of 35 U.S.C. 112, second paragraph. New claim 23, replacing original claim 10, has been amended to change the phrase "calculations or memories" to logic or memory circuits." Again, it is respectfully submitted that these terms are well-recognized in claim terminology. As such, reconsideration and removal of the 35 U.S.C. 112, second paragraph, rejection with regard to the newly submitted claims 17-24 is respectfully requested.

With regard to the original claims 12-16, it is noted that these claims do not contain the phrase "mainly composed of." Instead, independent claim 12 defines "wherein the main crystal structure of said titanium oxide is anatase." It is respectfully submitted that this terminology is sufficiently clear to meet the requirements of 35 U.S.C. 112, second paragraph. In particular, it is respectfully

submitted that the term "the main crystal structure" would be clearly understood by those skilled in the art and needs no amendment. Therefore, reconsideration and removal of the 35 U.S.C. 112, second paragraph, rejection with regard to claims 12-16 is also respectfully requested.

Reconsideration and allowance of the newly submitted claims 17-24 and the original claims 12-16 over the cited prior art to Matsushita (Japanese Patent Publication 53010283), Van Dover (USP 6,093,944) and Lau (USP 6,429,088), whether considered alone or in combination, is also respectfully requested for the reasons set forth below.

With regard to independent claims 17, 21 and 24, corresponding, respectively, to original claims 1, 5 and 11, these claims define that the selected material is one in which compression strain is produced. With regard to this, this strain state of film will change significantly depending on various factors such as the production process, the materials which are used, etc. More specifically, these factors include film-forming pressure, film-forming temperature, annealing temperature after film-formation, glass flow rate, CVD inner wall temperature, the distance between electrodes and the wafers, etc. These factors will determine whether the strain state is compression strain, intermediate, or tensile strain. Accordingly, as defined by these claims, conditions are set so that the material for the gate insulators will be in compression strain.

The primary reference to Matsushita fails to teach or suggest any such treatment to provide compression strain in the material of the gate insulators. Thus, although Matsushita discloses the use of hafnium as a gate insulator, this gate insulator could have a substantially different strain state than the compression strain defined by claims 17, 19, 22 and 24. Therefore, it is respectfully submitted that

Matsushita fails to teach or suggest this important structural aspect of the claims, and reconsideration and allowance of these claims is respectfully requested.

Reconsideration and allowance of claims 18-20, and 23 is also respectfully requested. Claims 18 and 20, like claim 17, define that the gate insulators are ones in which compression strain is reduced. Neither Matsushita or the secondary references to Van Dover or Lau teach or suggest these features. Therefore, reconsideration and allowance of these claims is also respectfully requested.

Consideration and allowance of independent claim 22 over the cited prior art is also respectfully requested. This claim defines an arrangement in which the first MOS transistor has a gate insulator comprised of one material (specifically, selected from titanium oxide, zirconium oxide and hafnium oxide) while the second MOS transistor has a gate insulator containing silicon oxide as a main component. Thus, two different transistors with two different gate insulators are set forth in this claim. It is respectfully submitted that none of the cited references teach or suggest this structure. Therefore, reconsideration and allowance of newly submitted claim 22 is also respectfully requested.

Reconsideration and allowance of claims 12-16 over the cited prior art is also respectfully requested. Independent claim 12 defines an arrangement wherein the crystal structure of titanium oxide is anatase "and the state of strain of the channel

region is said to be

that none of the cited references teach or suggest this particular defined arrangement since these documents are not concerned with the state of strain of the channel region. Therefore, reconsideration and allowance of claims 12-16 is also respectfully requested.

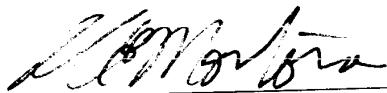
If the Examiner believes that there are any other points which may be clarified or otherwise disposed of, either by telephone discussion or by personal interview, the Examiner is invited to contact applicants' undersigned attorney at the number indicated below.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the deposit account of Antonelli, Terry, Stout & Kraus, Deposit Account No. 01-2135 (500.41080X00).

Respectfully submitted,

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